

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method, comprising:
determining a precision metric associated with each of a plurality of metrology tools;
generating a metrology request including context information;
identifying a precision requirement for the metrology request based on the context information, wherein identifying the precision requirement comprises:
extracting a metrology event type from the context information, and
associating the metrology event type with the precision requirement; and
identifying a set of the metrology tools capable of satisfying the metrology request based on the precision requirement and the precision metrics.
2. (Original) The method of claim 1, further comprising selecting one of the metrology tools from the set.
3. (Original) The method of claim 2, wherein selecting the one of the metrology tools further comprises selecting the one of the metrology tools having an associated precision metric closest to the precision requirement.
4. (Original) The method of claim 3, further comprising:
identifying a bottleneck condition associated with the selected one of the metrology tools;
and
selecting a different one of the metrology tools in the set responsive to identifying the bottleneck condition.

5. (Original) The method of claim 4, wherein selecting the different one of the metrology tools further comprises:

removing the selected metrology tool from the set; and

selecting one of the metrology tools remaining in the set having an associated precision metric closest to the precision metric.

6. (Original) The method of claim 3, further comprising:

identifying a bottleneck condition associated with the selected metrology tool; and

selecting a different one of the metrology tools not in the set responsive to identifying the bottleneck condition.

7. (Original) The method of claim 1, wherein identifying the precision requirement further comprises extracting the precision requirement from the context information.

8. (Canceled)

9. (Original) The method of claim 1, wherein generating the metrology request further comprising generating the metrology request for at least one of a control action event, a control model update event, a fault detection event, and a fault detection model update event.

10. (Currently Amended) A manufacturing system, comprising:

a manufacturing execution system server configured to generate a metrology request including context information; and

a metrology monitor configured to determine a precision metric associated with each of a plurality of metrology tools, identify a precision requirement for the metrology request based on the context information by extracting a metrology event type from the context information and associating the metrology event type with the precision requirement, and identify a set of the metrology tools capable of satisfying the metrology request based on the precision requirement and the precision metrics.

11. (Original) The system of claim 10, wherein the manufacturing execution system server is configured to select one of the metrology tools from the set.

12. (Original) The system of claim 11, wherein the manufacturing execution system server is configured to select the one of the metrology tools having an associated precision metric closest to the precision requirement.

13. (Original) The system of claim 12, wherein the manufacturing execution system server is configured to identify a bottleneck condition associated with the selected metrology tool and select a different one of the metrology tools in the set responsive to identifying the bottleneck condition.

14. (Original) The system of claim 13, wherein the manufacturing execution system server is configured to discarding the selected metrology from the set and select one of the

metrology tools remaining in the set having an associated precision metric closest to the precision metric.

15. (Original) The system of claim 12, wherein the manufacturing execution system server is configured to identify a bottleneck condition associated with the selected metrology tool and select a different one of the metrology tools not in the set responsive to identifying the bottleneck condition.

16. (Original) The system of claim 10, wherein the metrology monitor is further configured to extract the precision requirement from the context information.

17. (Canceled)

18. (Original) The system of claim 10, wherein the manufacturing execution system server is configured to generate the metrology request for at least one of a control action event, a control model update event, a fault detection event, and a fault detection model update event.

19. (Currently Amended) A system, comprising:
means for determining a precision metric associated with each of a plurality of metrology tools;
means for generating a metrology request including context information;
means for identifying a precision requirement for the metrology request based on the context information, wherein the means for identifying the precision requirement comprises:

means for extracting a metrology event type from the context information, and

means for associating the metrology event type with the precision requirement;

and

means for identifying a set of the metrology tools capable of satisfying the metrology request based on the precision requirement and the precision metrics.